

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-4. (Canceled.)

5.(Currently amended.) A method for identifying one or more candidate compounds as ~~modulators~~ an agonist, partial agonist, or inverse agonist of a G protein-coupled receptor comprising the polypeptide of SEQ ID NO:20, comprising the steps of:

(a) contacting said one or more compounds with a host cell comprising said receptor or with a host cell membrane ~~of a host cell~~ that ~~expresses~~ comprises said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate ~~functionality of~~ said receptor

(c) identifying the compound or compounds that inhibit or stimulate said receptor as an agonist, partial agonist, or inverse agonist of said receptor.

6. (Original) The method of claim 5 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor, said receptor comprising the polypeptide of SEQ ID NO:20.

7. (Currently amended.) A method for identifying one or more candidate compounds as ~~modulators~~ an agonist, partial agonist, or inverse agonist of a G protein-coupled receptor consisting of the polypeptide of ~~SEQ ID NO:20~~ SEQ ID NO:20, comprising the steps of:

(a) contacting said one or more compounds with a host cell comprising said receptor or with a host cell membrane ~~of a host cell~~ that ~~expresses~~ comprises said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate ~~functionality of~~ said receptor

(c) identifying the compound or compounds that inhibit or stimulate said receptor as an agonist, partial agonist, or inverse agonist of said receptor.

8. (Currently amended.) The method of claim 7 wherein said host cell comprises an expression vector, said expression vector comprising a ~~polynucleotide~~ polynucleotide encoding a G protein-coupled receptor, said receptor consisting of the polypeptide of ~~SEQ ID NO:20~~ SEQ ID NO:20.

9-20. (Canceled.)

21. (Currently amended.) A method for identifying one or more candidate compounds as ~~modulators~~ an agonist, partial agonist, or inverse agonist of a G protein-coupled receptor comprising the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine, comprising the steps of:

(a) contacting said one or more compounds with a host cell comprising said receptor or with a host cell membrane ~~of a host cell~~ that ~~expresses~~ comprises said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate ~~functionality of~~ said receptor

(c) identifying the compound or compounds that inhibit or stimulate said receptor as an agonist, partial agonist, or inverse agonist of said receptor.

22. (Original) The method of claim 21 wherein the glycine at amino acid position 285 is substituted with lysine.

23. (Original) The method of claim 21 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor comprising the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine.

24. (Currently amended.) A method for identifying one or more candidate compounds as ~~modulators~~ an agonist, partial agonist, or inverse agonist of a G protein-coupled receptor consisting of the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine, comprising the steps of:

- (a) contacting said one or more compounds with a host cell comprising said receptor or with a host cell membrane of a host cell that expresses comprises said receptor; and
- (b) measuring the ability of the compound or compounds to inhibit or stimulate ~~functionality of~~ said receptor
- (c) identifying the compound or compounds that inhibit or stimulate said receptor as an agonist, partial agonist, or inverse agonist of said receptor.

25. (Original) The method of claim 24 wherein the glycine at amino acid position 285 is substituted with lysine.

26. (Original) The method of claim 24 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding a G protein-coupled receptor consisting of the polypeptide of SEQ ID NO:20, wherein the glycine at amino acid position 285 of SEQ ID NO:20 is substituted with an amino acid other than glycine.

27. (Canceled.)

28.(New.) A method for identifying one or more candidate compounds as an agonist, partial agonist, or inverse agonist of a G protein-coupled receptor comprising the polypeptide of SEQ ID NO:20 or an endogenous version thereof which is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, wherein said stringent conditions comprise a wash at 65°C in 0.1xSSC, comprising the steps of:

- (a) contacting said one or more compounds with a host cell comprising said receptor or with a host cell membrane that comprises said receptor; and
- (b) measuring the ability of the compound or compounds to inhibit or stimulate said receptor
- (c) identifying the compound or compounds that inhibit or stimulate said receptor as an agonist, partial agonist, or inverse agonist of said receptor.

29. (New.) A method for identifying one or more candidate compounds as an agonist, partial agonist, or inverse agonist of a G protein-coupled receptor consisting of the polypeptide of SEQ ID NO:20 or an endogenous version thereof which is encoded by a polynucleotide that hybridizes under stringent conditions to the complement of SEQ ID NO:19, wherein said stringent conditions comprise a wash at 65°C in 0.1xSSC, comprising the steps of:

(a) contacting said one or more compounds with a host cell comprising said receptor or with a host cell membrane that comprises said receptor; and

(b) measuring the ability of the compound or compounds to inhibit or stimulate said receptor

(c) identifying the compound or compounds that inhibit or stimulate said receptor as an agonist, partial agonist, or inverse agonist of said receptor.

30.(New.) A method according to any one of claims 5 to 8, 21 to 26, 28 and 29, wherein the method further comprises formulating said agonist, partial agonist, or inverse agonist as a pharmaceutical.